

### Claims

The claims are listed as follows:

20. (Previously Presented) An image processing apparatus connectable via a network to a storage to store an image compressed code of a dynamic image data, comprising:
- an image expansion unit to expand the image compressed code and to output an expanded image data;
  - a first acquiring unit to acquire information of a master image data stored in a file header of the image compressed code of the dynamic image data stored in the storage;
  - a second acquiring unit to acquire information of the image compressed code of the dynamic image data stored in the storage;
  - a judging unit to judge a picture quality of the expanded image data output from the image expansion unit, the picture quality to be calculated by substituting, into a non-linear function, a ratio of a number of code bits of an entire file of the master image data and a number of code bits of the dynamic image data, and to generate picture quality information, based on the information of the master image data acquired by the first acquiring unit and the information of the image compressed code acquired by the second acquiring unit; and
  - an image display unit to display, on a display unit, an image of the expanded image data output from the image expansion unit and the picture quality information generated by the judging unit, wherein the information of the master image data stored in the file header of the image compressed code is the number of code bits of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of code bits of the dynamic image data.
21. (Previously Presented) An image processing apparatus connectable via a network to a storage to store an image compressed code of a dynamic image data, comprising:
- an image expansion unit to expand the image compressed code and to output an expanded image data;
  - a first acquiring unit to acquire information of a master image data stored in a file header of the image compressed code of the dynamic image data stored in the storage;

a second acquiring unit to acquire information of the image compressed code of the dynamic image data stored in the storage;

a judging unit to judge a picture quality of the expanded image data output from the image expansion unit and to generate picture quality information, based on the information of the master image data acquired by the first acquiring unit and the information of the image compressed code acquired by the second acquiring unit, the picture quality to be calculated by substituting, into a non-linear function, a ratio of a number of bit planes of an entire file of the master image data and a number of bit planes of the dynamic image data; and

an image display unit to display, on a display unit, an image of the expanded image data output from the image expansion unit and the picture quality information generated by the judging unit, wherein the information of the master image data stored in the file header of the image compressed code is the number of bit planes of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of bit planes of the dynamic image data.

22. (Previously Presented) The image processing apparatus of claim 21, wherein the image compressed code is obtained by encoding frequency conversion coefficients of the master image data in units of bit planes.

23. (Previously Presented) An image processing apparatus connectable via a network to a storage to store an image compressed code of a dynamic image data, comprising:

an image expansion unit to expand the image compressed code and to output an expanded image data;

a first acquiring unit to acquire information of a master image data stored in a file header of the image compressed code of the dynamic image data stored in the storage;

a second acquiring unit to acquire information of the image compressed code of the dynamic image data stored in the storage;

a judging unit to judge a picture quality of the expanded image data output from the image expansion unit and to generate picture quality information, based on the information of the master image data acquired by the first acquiring unit and the information of the image compressed code acquired by the second acquiring unit, the picture quality to be calculated by

substituting, into a non-linear function, a ratio of a resolution of an entire file of the master image data and a resolution of the dynamic image data; and

an image display unit to display, on a display unit, an image of the expanded image data output from the image expansion unit and the picture quality information generated by the judging unit, wherein the information of the master image data stored in the file header of the image compressed code is the resolution of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the resolution of the dynamic image data.

24. (Previously Presented) An image processing apparatus connectable via a network to a storage to store an image compressed code of a dynamic image data, comprising:

an image expansion unit to expand the image compressed code and to output an expanded image data;

a first acquiring unit to acquire information of a master image data stored in a file header of the image compressed code of the dynamic image data stored in the storage;

a second acquiring unit to acquire information of the image compressed code of the dynamic image data stored in the storage;

a judging unit to judge a picture quality of the expanded image data output from the image expansion unit and to generate picture quality information, based on the information of the master image data acquired by the first acquiring unit and the information of the image compressed code acquired by the second acquiring unit, the picture quality to be calculated by substituting, into a non-linear function, a ratio of a number of rectangular regions of an entire file of the master image data and a number of rectangular regions of the dynamic image data; and

an image display unit to display, on a display unit, an image of the expanded image data output from the image expansion unit and the picture quality information generated by the judging unit, wherein the information of the master image data stored in the file header of the image compressed code is the number of rectangular regions of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of rectangular regions of the dynamic image data.

25. (Previously Presented) The image processing apparatus of claim 24, wherein the image compressed code is obtained by dividing the master image data into a plurality of rectangular regions and encoding the master image data in units of rectangular regions.

26. (Previously Presented) The image processing apparatus of claim 25, wherein predetermined rectangular regions have been subjected to a weighting of the number of rectangular regions of the image compressed data.

27. (Previously Presented) An image processing apparatus connectable via a network to a storage to store an image compressed code of a dynamic image data, comprising:

an image expansion unit to expand the image compressed code and to output an expanded image data;

a first acquiring unit to acquire information of a master image data stored in a file header of the image compressed code of the dynamic image data stored in the storage;

a second acquiring unit to acquire information of the image compressed code of the dynamic image data stored in the storage;

a judging unit to judge a picture quality of the expanded image data output from the image expansion unit and to generate picture quality information, based on the information of the master image data acquired by the first acquiring unit and the information of the image compressed code acquired by the second acquiring unit, the picture quality to be calculated by substituting, into a non-linear function, a ratio of a number of frames of an entire file of the master image data and a number of frames of the dynamic image data; and

an image display unit to display, on a display unit, an image of the expanded image data output from the image expansion unit and the picture quality information generated by the judging unit, wherein the information of the master image data stored in the file header of the image compressed code is the number of frames of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of frames of the dynamic image data.

28. (Previously Presented) The image processing apparatus of claim 27, wherein the image compressed code is obtained by encoding the master image data, formed by dynamic image data, in frame units.

29. (Previously Presented) A computer-readable storage medium that stores a computer program which, when executed by a computer, causes the computer to perform operations comprising:

- expanding an image compressed code and outputting an expanded image data;
- acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;
- acquiring information of the image compressed code of the dynamic image data stored in the storage;

- judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a ratio of a number of code bits of an entire file of the master image data and a number of code bits of the dynamic image data; and

- displaying an image of the expanded image data output from the image expansion unit and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of code bits of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of code bits of the dynamic image data.

30. (Previously Presented) A computer-readable storage medium that stores a computer program which, when executed by a computer, causes the computer to perform operations comprising:

- expanding an image compressed code and outputting an expanded image data;
- acquiring information of a master image data stored in a file header of an image compressed code of a dynamic image data stored in a storage;
- acquiring information of the image compressed code of the dynamic image data stored in the storage;

- judging a picture quality of the expanded image data output from the image expansion unit and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by

substituting, into a non-linear function, a ratio of a number of bit planes of an entire file of the master image data and a number of bit planes of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of bit planes of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of bit planes of the dynamic image data.

31. (Previously Presented) The computer-readable storage medium of claim 30, wherein the image compressed code is obtained by encoding frequency conversion coefficients of the master image data in units of bit planes.

32. (Previously Presented) A computer-readable storage medium that stores a computer program which, when executed by a computer, causes the computer to perform operations comprising:

expanding an image compressed code and outputting an expanded image data;  
acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;  
acquiring information of the image compressed code of the dynamic image data stored in the storage;  
judging a picture quality of the expanded image data output and to generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a ratio of a resolution of an entire file of the master image data and a resolution of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the resolution of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the resolution of the dynamic image data.

33. (Previously Presented) A computer-readable storage medium that stores a computer program which, when executed by a computer, causes the computer to perform operations comprising:

- expanding an image compressed code and outputting an expanded image data;
- acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;
- acquiring information of the image compressed code of the dynamic image data stored in the storage;
- judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of rectangular regions of an entire file of the master image data and a number of rectangular regions of the dynamic image data; and
- displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of rectangular regions of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of rectangular regions of the dynamic image data.

34. (Previously Presented) The computer-readable storage medium of claim 33, wherein the image compressed code is obtained by dividing the master image data into a plurality of rectangular regions and encoding the master image data in units of rectangular regions.

35. (Previously Presented) The computer-readable storage medium of claim 34, wherein predetermined rectangular regions have been subjected to a weighting of the number of rectangular regions of the image compressed data.

36. (Previously Presented) A computer-readable storage medium that stores a computer program which, when executed by a computer, causes the computer to perform operations comprising:

- expanding an image compressed code and outputting an expanded image data;

acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;

acquiring information of the image compressed code of the dynamic image data stored in the storage;

judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of frames of an entire file of the master image data and a number of frames of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of frames of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of frames of the dynamic image data.

37. (Previously Presented) The computer-readable storage medium of claim 36, wherein the image compressed code is obtained by encoding the master image data, formed by dynamic image data, in frame units.

38. (Previously Presented) An image processing method comprising:

expanding an image compressed code and outputting an expanded image data;

acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;

acquiring information of the image compressed code of the dynamic image data stored in the storage;

judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of code bits of an entire file of the master image data and a number of code bits of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the



image compressed code is the number of code bits of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of code bits of the dynamic image data.

39. (Previously Presented) An image processing method comprising:

expanding an image compressed code and outputting an expanded image data;  
acquiring information of a master image data stored in a file header of the image

compressed code of a dynamic image data stored in a storage;

acquiring information of the image compressed code of the dynamic image data stored in the storage;

judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of bit planes of an entire file of the master image data and a number of bit planes of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of bit planes of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of bit planes of the dynamic image data.

40. (Previously Presented) The image processing method of claim 39, wherein the image compressed code is obtained by encoding frequency conversion coefficients of the master image data in units of bit planes.

41. (Previously Presented) An image processing method comprising:

expanding an image compressed code and outputting an expanded image data;  
acquiring information of a master image data stored in a file header of the image

compressed code of a dynamic image data stored in a storage;

acquiring information of the image compressed code of the dynamic image data stored in the storage;

judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a resolution of an entire file of the master image data and a resolution of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the resolution of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the resolution of the dynamic image data.

42. (Previously Presented) An image processing method comprising:

expanding an image compressed code and outputting an expanded image data;

acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;

acquiring information of the image compressed code of the dynamic image data stored in the storage;

judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of rectangular regions of an entire file of the master image data and a number of rectangular regions of the dynamic image data; and

displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of rectangular regions of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of rectangular regions of the dynamic image data.

43. (Previously Presented) The image processing method of claim 42, wherein the image compressed code is obtained by dividing the master image data into a plurality of rectangular regions and encoding the master image data in units of rectangular regions.

44. (Previously Presented) The image processing method of claim 43, wherein predetermined rectangular regions have been subjected to a weighting of the number of rectangular regions of the image compressed data.

45. (Previously Presented) An image processing method comprising:  
expanding an image compressed code and outputting an expanded image data;  
acquiring information of a master image data stored in a file header of the image compressed code of a dynamic image data stored in a storage;  
acquiring information of the image compressed code of the dynamic image data stored in the storage;  
judging a picture quality of the expanded image data output and generating picture quality information, based on the information of the master image data and the information of the image compressed code, the picture quality calculated by substituting, into a non-linear function, a number of frames of an entire file of the master image data and a number of frames of the dynamic image data; and  
displaying an image of the expanded image data output and the picture quality information, wherein the information of the master image data stored in the file header of the image compressed code is the number of frames of the entire file of the master image data, and the information of the image compressed code of the dynamic image data is the number of frames of the dynamic image data.

46. (Previously Presented) The image processing method of claim 45, wherein the image compressed code is obtained by encoding the master image data, formed by dynamic image data, in frame units.